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The Law Offices of Albert S. Michalik
Suite 193
704-228th Avenue NE
Sammamish, WA 98074

EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,633

Applicant(s)

SUTTON ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-48 are presented for the examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-8, 10-13, 25-33, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2) and further in view of Sugimoto et al (US. Patent 6,839,723).
3. As to claim 1, Jindal teaches the invention substantially as claimed including: a controller (NameServer 100 through DNS, identifies a server to handle the request, col 5, ln 50-54/ ln 26-30), a plurality of sets (server farm 400, server farm 410, col 8, ln 55-65/ Fig. 4), set comprising a grouping of at least one computing device (server 402, 404 in server farm 400, col 8, ln 58-62), maintaining a plurality sets at controller, each set comprising a grouping of at least one computing device (col 8, ln 55-63/ Fig. 5/ col 9, ln 11-16), providing at the controller a section corresponding to at least one computing device (NameServer 100 through DNS , identifies a server to handle the request, col 5, ln 50-54/ ln 26-30).

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4. Jindal does not explicitly teach providing at the controller a job corresponding to at least one operation to perform on the selection, sending a message, the message instructing the computing device that receives the message to execute the job, at the controller storing results of the job from each computing device. However, Sashino teaches providing at the controller a job corresponding to at least one operation to perform on the selection (the server machine selector 212-a receives a request message 700 from the receive port 211-a and selects its local server-run computer that performs the task of execution of the request method, col 5, ln 49-50/ col 10, ln 59-64), sending a message (issuing a request message 700 in which a method name 730 is specified, the requirement for the server-run computer 200-1 or 220-b to execute the method, col 8, ln 6-10), the message instructing the computing device that receives the message to execute the job (a method name 730 from the request message 700 which is presented to identify the object to be invoked and the method to be executed, col 3, ln 50-55), at the controller results of the job from each computing device (the client run computer receiving the result of method execution from the response sender 224-a on the server-run computer, col 10, ln 38-41).
5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Jindal and Sashino because Sashino's sending a message, the message instructing the computing device that receives the message to execute the job, at the controller storing results of the job from each computing device would improve the efficiency of Jindal and Sashino's systems by allowing the load balancing feature with easy addition and expansion of objects to run on a server-run computer.

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6. Jindal, Sashino do not explicit teach store result. However, Sugimoto teaches store result (the return information receiving area 60 is an area for storing the response message received from server, col 12, ln 12-15).

7. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino and Sugimoto because Sugimoto's store result would improve the flexibility of Jindal and Sashino's systems by allowing system to save the return information for late user.

8. **As to claim 2**, Sashino teaches providing data corresponding to at least one set of computing device (col 3, ln 50-58).

9. **As to claim 3**, Sashino teaches a script to run on the selection (col 15, ln 22-28).

10. **As to claim 4**, Sashino teaches binary program (col 5, ln 1-5).

11. **As to claim 6**, Sashino teaches executing the job in response to the message (col 3, ln 55-59).

12. **As to claims 7 and 8**, they are apparatus claims of claims 3 and 4; therefore, they are rejected for the same reasons as claims 3 and 4 above.

13. **As to claim 10**, Sahino teaches the controller discovery information indicating that a node-computing device is operational so as to be controlled by the controller (col 5, ln 40-45).

14. **As to claim 11**, Sahino teaches recognizing the node-computing device is already controlled by the controller (if there is not room, col 5, ln 40-45).

15. **As to claim 12**, Sahino teaches recognizing that the node computing the controller does not control device, and controlling the node-computing device (col 6, ln 20-24).

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16. As to claim 13, Sahino teaches adding information identifying the node-computing device (col 6, ln 38-40), a data store maintained by the controller (col 4, ln 56-60).

17. As to claim 25, it is an apparatus claim of claim 1; therefore, it is rejected for the same reasons as claim 1 above. In additional, Sashino teaches agent software (the object invocation unit, col 3, ln 55-59/ Fig. 1), a transport (col 3, ln 20-27), Sahino teaches each device object identifying a computing node (col 4, ln 40-42), each set object identifying a group (col 2, ln 50-55), each computing node group together via a set object (col 4, ln 50-56), schema (the load table 214, col 5, ln 65-67 to col 6, ln 1-3/ the data object table 340, col 7, ln 59-65/ the load table 600, col 8, ln 36-41/ load balancing schema, col 11, ln 5-8), a job corresponding to at least one operation to be executed (the server machine selector 212-a receive a request message 700 from the receive port 211-a and selects its local server-run computer that performs the task of execution of the request method, col 5, ln 49-50/ col 10, ln 59-64).

18. As to claim 26, Sugimoto teaches interface configured to provide access to information in the data store (col 12, ln 16-21).

19. As to claim 27, Sahino teaches an execution engine at the node computer, the agent software communicating with the execution engine to perform the at least one-operation corresponding to the job (col 3, ln 53-59).

20. As to claims 28-29, they are apparatus claims of claims 3, 4; therefore, they are rejected for the same reasons as claims 3, 4 above.

21. As to claims 30-33, Sashino teaches special operation, a reboot operation; suspend operation, shutdown operation (col 3, ln 50-55/ Fig. 6).

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22. As to claims 34-35, they are apparatus claims of claims 10, 14; therefore, they are rejected for the same reasons as claims 10, 14 above

23. Claims 5, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2) in view of Sugimoto et al (US. Patent 6,839,723), as applied to claim 1 above, and further in view of Toga (US. Patent 5,987,504).

24. As to claim 5, Jindal, Sashino and Sugimoto do not explicitly teach a network address. However, Toga teaches a network address (user@company.com sz>1000, fig. 4).

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino, Sugimoto and Toga because Toga's network address would improve the use of Jindal, Sashino, Sugimoto's systems by delivering of data or information between a server and client user that overcomes the aforementioned problems.

26. As to claim 9, Toga teaches retrieving the program based on a network address in the message (col 3, ln 64-68).

27. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2), in view of Sugimoto et al (US. Patent 6,839,723), as applied to claim 1 above, and further in view of Choquier et al (US. Patent 5,774,668).

28. As to claim 14, Jindal, Sashino and Sugimoto do not teach automatically configuring the node-computing device based on receiving the discovery information. However, Choquier teaches configuring the node-computing device based on receiving the discovery information (If the average load is greater than the predetermined maximum, a server 120 will be added to the service group, col 24, ln 25-30).

29. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino, Sugimoto and Choquier because Choquier's automatically configuring the node computing device based on receiving the discovery information would improve flexibility of Jindal, Sashino, Sugimoto's systems allowing additional servers to be efficiently added to the network.

30. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2) in view of Sugimoto et al (US. Patent 6,839,723), as applied to claim 1 above, and further in view of Ludwig et al (6,789,105 b2).

31. As to claim 15, Jindal, Sashino and Sugimoto do not teach collecting the results in storage. However, Ludwig teaches collecting the results in a storage (the resulting information is stored in the conventional file that can later be retrieved, col 28, ln 65-67).

32. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino, Sugimoto and Ludwig because Ludwig's

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collecting the results in storage would increase the use of Jindal, Sashino, Sugimoto's systems by storing and replaying a user's interface actions.

33. Claims 16, 38, 40, 36, 37, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2) in view of Sugimoto et al (US. Patent 6,839,723), as applied to claim 1 above, and further in view of C. Mohan (Exotica: A Project on Advanced Transaction Management and Workflow System).

34. As to claim 16, Jindal, Sashino and Sugimoto do not teach persisting results. However, Mohan teaches persisting results (record in stable storage the results, sec: 3.4, ln 8-9).

35. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino, Sugimoto and Mohan because Mohan's persisting results would improve the efficiency of Jindal, Sashino and Sugimoto's systems by making communication between client and server more consistent.

36. As to claim 38, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In addition, Mohan teaches logging the result (section: 3.4, ln 8-9).

37. As to claim 40, Sugimoto teaches analyzing the result (col 3, ln 1-4).

38. As to claims 36, 37, Rabinovich teaches each node includes a discovery component for automatically providing the discovery information, each node automatically provides the discovery information following a reboot of that node (col 5, ln 40-46).

39. As to claim 39, Rabinovich teaches arranging the plurality of computing devices into the set (col 6, ln 39-42).

40. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2) in view of Sugimoto et al (US. Patent 6,839,723), as applied to claim 1 above, in view of C. Mohan (Exotica: A Project on Advanced Transaction Management and Workflow System) and further in view of Perlman et al (US. 5,978,381).

41. As to claim 41, Jindal, Sashino, Sugimoto and Mohan do not teach the operation failed on a given computing device, requesting that performance of the operation be retried on that computing device. However, Perlman teaches the operation failed on a given computing device, requesting that performance of the operation be retried on that computing device (client devices receiving multicast data streams all suffer from 10 data errors, there will be 10 million retry requests to content sever 210, col 12, ln 59-66).

42. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino, Sugimoto, Mohan and Perlman because Perlman's the operation failed on a given computing device, requesting that performance of the operation be retried on that computing device would increase the efficiency of Jindal, Sashino, Sugimoto, Mohan's systems by providing more efficient correction of sporadic transmission errors.

43. Claims 42-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabinovich et al (6,125,394) in view of Jindal et al (US. Patent 6,324,580 B1),

44. As to claim 42, Rabinovich teaches editing the set to add at least one controlled computing device to the set (col 2, ln 65-67/ col 5, ln 4-7), storing the set (col 4, ln 45-50/ ln 57-60), at the controller, using the set to control each controlled computing device of the set (col 5, ln 4-8).

45. Rabinovich does not explicit teach define plurality of sets. However, Jindal teaches plurality of set (server farm 400, server farm 410, col 8, ln 55-65/ Fig. 4/ server 402, 404 in server farm 400, col 8, ln 58-62).

46. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Rabinovich and Jindal because Jindal's define plurality of sets would improve the flexibility of Rabinovich's system by providing the multiple servers in order to satisfy the client's requests.

47. As to claim 43, Rabinovich teaches editing the set to remove at least one controlled computing device from the set (col 5, ln 4-8).

48. As to claim 44, Rabinovich teaches defining a set comprises, identifying a set object (col 2, ln 54-56).

49. As to claim 45, Rabinovich teaches calling a method of the set object (col 5, ln 26-29).

50. As to claim 46, Rabinovich teaches storing the set on a data store accessible to the controller (col 4, ln 40-49).

51. As to claim 47, Rabinovich selecting the set (col 2, ln 54-58), and instructing the controller to perform an operation to the set (col 4, ln 39-45), the controller communicating with each computing device in the set to request performance of the operation (col 5, ln 26-29).

52. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rabinovich et al (6,125,394) in view of Jindal et al (US. Patent 6,324,580 B1), as applied to claim 42 above, and further in view of Sugimoto.

53. As to claim 48, Rabinovich and Jindal do not teach store result. However, Sugimoto teaches store result (the return information receiving area 60 is an area for storing the response message received from server, col 12, ln 12-15).

54. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Jindal, Sashino and Sugimoto because Sugimoto's store result would improve the flexibility of Rabinovich and Jindal's systems by allowing the system to save the return information for late user.

55. Claims 17, 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabinovich et al (US. 6,125,394) in view of Sashino et al (US. Patent 6,701,323 B2).

56. As to claim 17, Rabinovich teaches a controller (a selection unit/ a statistical unit, col 2, ln 54-58/ server 14, col 4, ln 39-44), a plurality of computing nodes (col 2, ln 49-52), a job (task, col 1, ln 22-23/ col 5, ln 26-29), a job object, the job object specifying data corresponding to an operation to the executed (col 1, ln 20-23/ col 5, ln 24-29).

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57. Rabinovich does not teach each device object identifying a computer node, each computing node group together via a set object, schema, a job object specifying data corresponding to at least one operation to be executed. However, Sahino teaches each device object identifying a computing node (col 4, ln 40-42), each set object identifying a group (col 2, ln 50-55), each computing node group together via a set object (col 4, ln 50-56), schema (the load table 214, col 5, ln 65-67 to col 6, ln 1-3/ the data object table 340, col 7, ln 59-65/ the load table 600, col 8, ln 36-41/ load balancing schema, col 11, ln 5-8), a job corresponding to at least one operation to be executed (the server machine selector 212-a receive a request message 700 from the receive port 211-a and selects its local server-run computer that performs the task of execution of the request method, col 5, ln 49-50/ col 10, ln 59-64).

58. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Rabinovich and Sashino because Sashino's each device object identifying a computer node, each computing node group together via a set object, schema would improve the efficiency of Rabinovich and Sashino's systems by allowing the load balancing feature with easy addition and expansion of objects to run on a sever-run computer.

64. **As to claim 19**, Rabinovich teaches adding a device to a set (requests the data object, it is added to the group, col 5, ln 4-7).

66. **As to claim 20**, Rabinovich teaches removing a device from a set (col 5, ln 40-45).

67. **As to claim 21**, Rabinovich teaches running a job on the set (col 1, ln 21-24).

68. **As to claim 22**, Rabinovich teaches the device object includes association to other objects (col 2, ln 50-53).

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59. As to claim 23, Sahino teaches a job invocation object that is created wherein when the job is executed (col 3, ln 50-55).

60. As to claim 24, Sahino teaches an alerts object for communicating information from computing node the to the controller (col 3, ln 47-50).

61. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rabinovich et al (US. Patent 6,324,580 B1) in view of Sashino et al (US. Patent 6,701,323 B2) and further in view of C. Mohan (Exotica: A Project on Advanced Transaction Management and Workflow System).

61. As to claim 18, Rabinovich, Sashino do not teach job log object. However, Mohan teaches job log object (sec: 3.4, ln 8-9).

62. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Rabinovich, Sashino and Mohan because Mohan's persisting results would improve the efficiency of Rabinovich, Sashino's systems by making communication between client and server more consistent.

Response to the argument:

69. Applicant amendment filed on 9/03/04 has been considered but they are not persuasive:

Applicant argued in substance that :

(1) “ the prior art of record fails to teach or suggest a data structure comprise a schema configured to enable a plurality of computing node ”.

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70. Examiner respectfully disagreed with Applicant's remarks:

As to the point (1) Sashino teaches schema (the table 350 for object code management maintained in the managing computer 300. The table 350 (data structure is denoted by reference number 800) maps an object code identifier 810 ... can be invoked on the server-run computer 200-a or 200-b/ the load table 214, col 5, ln 65-67 to col 6, ln 1-3/ the data object table 340, col 7, ln 59-65/ the load table 600, col 8, ln 36-41/ load balancing schema, col 11, ln 5-8).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

August 22, 2005


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100